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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 08/916,280 | 08/22/97 | MATSUI | Y Q46364 |

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EXAMINER

HOANG, H

ART UNIT

2511

PAPER NUMBER

DATE MAILED:

02/04/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

| | |
|-------------------------------|----------------------------------|
| Application No. 08/916,280 | Applicant(s) Yoshinori Matsui |
| Examiner Huan Hoang | Group Art Unit 2511 |

Responsive to communication(s) filed on _____.

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-20 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) 1, 3, 12-14, and 19 is/are allowed.

Claim(s) 2, 4-11, 15-18, and 20 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) 08/084,017.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Reissue Applications

1. The original patent, or an affidavit or declaration as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178.

Claim Rejections - 35 USC § 112

2. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The recitation "said first data line being coupled, at the other side thereof, to said respective signal line of said amplifier block" (claim 20, lines 7-8) is not clearly disclosed in the specification of shown in any of the drawings.

Claims 2, 4-11, 15-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2 and 4 recites the limitation "said third internal data lines" (column 10, line 12 and page 11, lines 21-22). There is insufficient antecedent basis for this limitation in each claim.

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The use of "one of said memory block" (claim 9, lines 7-8) and "one of said first and second memory cell" (claim 15, line 3 and line 4) is confusing since "block" and "cell" should be in plural form.

Allowable Subject Matter

3. Claims 1, 3, 12-14 and 19 are allowed.
4. Claims 2, 4 and 9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.
5. Claims 5-8, 10, 11, 15-18 and 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Independent claims 1, 2, 3, 4, 9, 12 and 19 recite a memory device having a plurality of memory cell blocks and a plurality of sense amplifier blocks. The device comprises N amplifier blocks arranged in the first direction, N-1 sense amplifier blocks each arranged between and coupled with two respectively adjacent ones of the N amplifier blocks, a first data line coupled to the first memory block and the last amplifier block and a second data line coupled to one of the remainder of amplifier blocks, the second data line being isolated from the first amplifier block and the last amplifier block.

The advantage of the invention is to assign one data bus to each of the selection/sense amplifier circuits; therefore, it is possible to simplify the layout and reduce the chip area.

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takashima discloses a dynamic semiconductor memory device having an improved sense amplifier layout arrangement.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan Hoang whose telephone number is (703) 305-3494 or Fax number is (703) 308-7724.



A handwritten signature in black ink, appearing to read "Huan Hoang", is written over a single horizontal line. Below this line, the name "HUAN HOANG" is printed in a smaller, all-caps, sans-serif font.

Huan Hoang

January 30, 1998